

ABSTRACT OF THE DISCLOSURE

A method for compounding gel-free injection molding feed stock for injection molding net-shape ceramic parts, including the steps of: mixing inorganic particles with non-gel forming water soluble organic binders having

5 molecular weight between 1000 and 1,000,000 and that are between 0.5 weight % and 10 weight % based upon the inorganic particles, along with plasticizers, water and processing aids in a mixer to form a mixture, wherein the non-gel forming water soluble organic binders are composed of high and low molecular weight organic binders; compounding the mixed inorganic particles and the non-gel

10 forming water soluble organic binders at a high temperature in the range of between 70° and 98° Centigrade, under shear force, to form a homogenous viscous slurry in the range of 5×10^3 and 7×10^4 Pa.sec at a shear rate of 10 sec^{-1} ; cooling the homogenous viscous slurry to room temperature to form a compounded solid mass.

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10 20 30 40 50 60 70 80 90